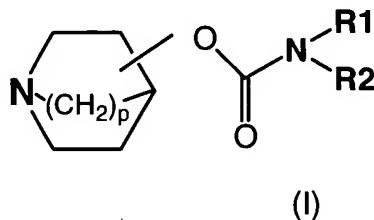


AMENDMENTS TO THE CLAIMS

Please amend claim 37 as indicated below and add new claims 70-79. Additions are underlined and deletions. The listing of claims below will replace all prior versions and listings of claims in the application.

Claims 1-35 (Cancelled)

36. (Previously Presented) A compound of formula (I)



wherein

- R1 represents a group chosen from phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, benzyl, furan-2-ylmethyl, furan-3-ylmethyl, thiophen-2-ylmethyl, and thiophen-3-ylmethyl;
- R2 represents a group chosen from optionally substituted lower alkyl, optionally substituted lower alkenyl, optionally substituted lower alkynyl, saturated or unsaturated cycloalkyl, saturated or unsaturated cycloalkylmethyl, phenyl, benzyl, phenethyl, furan-2-ylmethyl, furan-3-ylmethyl, thiophen-2-ylmethyl, thiophen-3-ylmethyl, pyridyl, and pyridylmethyl; wherein the carbocyclic moieties in the cycloalkyl, cycloalkylmethyl, phenyl, benzyl or phenethyl groups are optionally bridged or fused to another saturated, unsaturated or aromatic carbocyclic moiety or to a cyclic moiety comprising carbon atoms and 1 or 2 oxygen atoms;

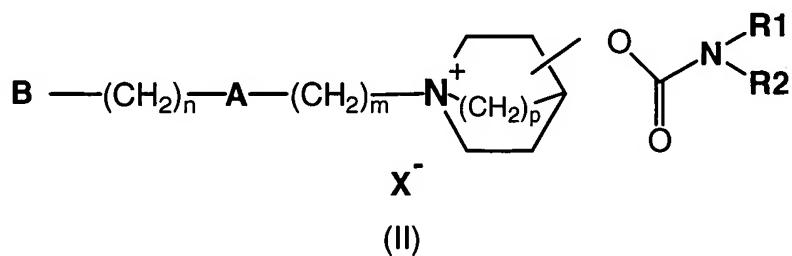
wherein the cyclic groups present in R1 and R2 are optionally substituted by one, two or three, which may be identical or different, substituents chosen from halogen; straight or branched, optionally substituted lower alkyl; hydroxy; straight or branched, optionally substituted lower alkoxy; -SH; straight or branched optionally substituted lower alkylthio; nitro; cyano; -NR'R"; -CO₂R'; -C(O)-NR'R"; -N(R'')C(O)-R'; and -N(R'')-C(O)NR'R"; wherein R', R" and R'', which may be identical or different, are each independently chosen from a hydrogen atom, and a straight or branched, optionally substituted lower alkyl group, or R' and R" together with the atom to which they are attached form a cyclic group; and

- p is 1 or 2 and the carbamate group is attached at positions 2, 3 or 4 of the azabicyclic ring:

or a pharmaceutically acceptable salt thereof or a stereoisomer thereof
with the proviso that the compound of formula (I) is not one of

- Diphenylcarbamic acid 1-azabicyclo[2.2.2]oct-3-yl ester or
- Ethylphenylcarbamic acid 1-azabicyclo[2.2.2]oct-3-yl ester.

37. (Currently Amended) The A compound of claim 36, wherein the pharmaceutically acceptable salt thereof is a quaternary ammonium salt of formula (II)



wherein

- R1 represents a group chosen from phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, benzyl, furan-2-ylmethyl, furan-3-ylmethyl, thiophen-2-ylmethyl, and thiophen-3-ylmethyl;

- R2 represents a group chosen from optionally substituted lower alkyl, optionally substituted lower alkenyl, optionally substituted lower alkynyl, saturated or unsaturated cycloalkyl, saturated or unsaturated cycloalkylmethyl, phenyl, benzyl, phenethyl, furan-2-ylmethyl, furan-3-ylmethyl, thiophen-2-ylmethyl, thiophen-3-ylmethyl, pyridyl, and pyridylmethyl; wherein the carbocyclic moieties in the cycloalkyl, cycloalkylmethyl, phenyl, benzyl or phenethyl groups are optionally bridged or fused to another saturated, unsaturated or aromatic carbocyclic moiety or to a cyclic moiety comprising carbon atoms and 1 or 2 oxygen atoms;

wherein the cyclic groups present in R1 and R2 are optionally substituted by one, two or three, which may be identical or different, substituents chosen from halogen; straight or branched, optionally substituted lower alkyl; hydroxy; straight or branched, optionally substituted lower alkoxy; -SH; straight or branched optionally substituted lower alkylthio; nitro; cyano; -NR'R'', -CO₂R', -C(O)-NR'R'', -N(R'')C(O)-R', and -N(R'')-C(O)NR'R'' groups, wherein R', R'' and R''', which may be identical or different, are each independently chosen from a hydrogen atom and a straight or branched, optionally substituted lower alkyl group, or R' and R''' together with the atom to which they are attached form a cyclic group;

- p is 1 or 2 and the carbamate group is attached at positions 2, 3 or 4 of the azabicyclic ring;

- m is an integer ranging from 0 to 8;

- n is an integer ranging from 0 to 4;

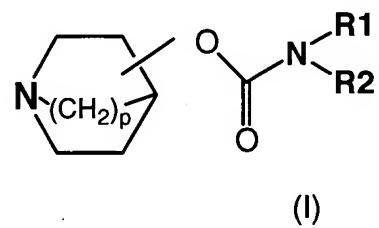
- A represents a group chosen from -CH₂-; -CH=CR'-; -CR'=CH-; -CR'R"-; .-C(O)-, -O-, -S-, -S(O)-, -S(O)₂- and -NR'-, wherein R' and R", which may be identical or different, are each independently chosen from a hydrogen atom and a straight or branched, optionally substituted lower alkyl group, or R' and R" together with the atom to which they are attached form a cyclic group;

- B represents a hydrogen atom, or a group chosen from straight or branched, optionally substituted lower alkyl; hydroxy; straight or branched, optionally substituted lower alkoxy; cyano; nitro; -CH=CR'R"; -C(O)OR'; -OC(O)R'; -SC(O)R'; -C(O)NR'R"; -NR'C(O)OR"; -NR'C(O)NR"; cycloalkyl; phenyl; naphthanelyl; 5,6,7,8-tetrahydronaphthanelyl; benzo[1,3]dioxolyl; heteroaryl; and heterocyclyl; wherein R' and R", which may be identical or different, are each independently chosen from a hydrogen atom and a straight or branched, optionally substituted lower alkyl group, or R' and R" together with the atom to which they are attached form a cyclic group; and

wherein the cyclic groups represented by B are optionally substituted by one, two or three, identical or different, substituents chosen from halogen; hydroxy; straight or branched, optionally substituted lower alkyl; phenyl; -OR'; -SR'; -NR'R"; -NHCOR'; -CONR'R"; -CN; -NO₂; and -COOR'; wherein R' and R" are each independently chosen from a hydrogen atom, or a straight or branched, optionally substituted lower alkyl group, or R' and R" together with the atom to which they are attached form a cyclic group; and

- X⁻ represents a pharmaceutically acceptable anion of a mono or polyvalent acid;

or a stereoisomer thereof; or a mixture of stereoisomers thereof, and a or a
mixture of at least one stereoisomer of a compound of formula (II) and at least one
stereoisomer of a compound of formula (I)



38. (Previously Presented) The compound of Claim 36, wherein when the cyclic group present in R1 is unsubstituted or has only one substituent, R2 has at least one substituent.

39. (Previously Presented) The compound of Claim 36 wherein when R2 is not substituted, the cyclic group present in R1 has at least two substituents.

40. (Previously Presented) The compound of Claim 36, wherein when p is 2;

the carbamate group is attached at position 3 of the azabicyclic ring;
and R1 is an unsubstituted indanyl group or a phenyl group, which is optionally substituted with one or two, identical or different, substituents chosen from chlorine, fluorine, bromine, methyl, hydroxy and cyano;

then R2 cannot be one of: unsubstituted cyclopropylmethyl; unsubstituted cyclobutylmethyl; unsubstituted cyclopentylmethyl; cyclohexylmethyl optionally substituted with a methyl or an isopropenyl group; unsubstituted cyclohexenyl; unsubstituted norbornenyl; unsubstituted bicyclo[2.2.1]heptanyl; unsubstituted

benzo[1;3]dioxolyl; unsubstituted 2,3-dihydrobenzo[1,4]dioxinyl; unsubstituted benzyl; a benzyl group which is substituted with one or two, identical or different, substituents chosen from fluorine, chlorine, bromine, methoxy, methyl, trifluoromethyl, ethyl, tertbutyl, hydroxy, hydroxymethyl, cyano, aminocarbonyl, trifluoromethoxy, benzyloxy, and isopropoxy; or a benzyl group which is substituted with three fluorine atoms.

41. (Previously Presented) The compound of Claim 36, wherein R1 represents a group chosen from 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, benzyl, furan-2-ylmethyl, furan-3-ylmethyl, thiophen-2-ylmethyl; and thiophen-3-ylmethyl;

wherein the cyclic group present in R1 is optionally substituted by one, two, or three, identical or different, substituents chosen from halogen; straight or branched, optionally substituted lower alkyl; hydroxy; straight or branched, optionally substituted lower alkoxy; -SH; straight or branched optionally substituted lower alkylthio; nitro; cyano; -NR'R"; -CO₂R'; -C(O)-NR'R"; -N(R'')C(O)-R'; and -N(R'')-C(O)NR'R";

wherein R', R" and R'" each independently represents a hydrogen atom or a straight or branched, optionally substituted lower alkyl group or R' and R" together with the atom to which they are attached form a cyclic group.

42. (Previously Presented) The compound of Claim 36, wherein R2 represents an optionally substituted group chosen from lower alkyl, lower alkenyl, lower alkynyl, saturated or unsaturated cycloalkyl, phenyl, phenethyl, furan-2-ylmethyl, furan-3-ylmethyl, thiophen-2-ylmethyl, thiophen-3-ylmethyl, pyridyl, pyridylmethyl, and a saturated or unsaturated cycloalkylmethyl which has at least one substituent and is chosen from substituted cyclopropylmethyl, substituted cyclobutylmethyl and substituted cyclopentylmethyl;

wherein the substituents of the cyclic group present in R2 are one, two or three, identical or different, substituents chosen from halogen; straight or branched, optionally substituted lower alkyl; hydroxy; straight or branched, optionally substituted lower alkoxy; -SH; straight or branched optionally substituted lower alkylthio; nitro; cyano; —NR'R"; -CO₂R'; -C(O)-NR'R"; —N(R'')C(O)-R'; and -N(R'')-C(O)NR'R";

wherein R', R" and R''' each independently represents a hydrogen atom or a straight or branched, optionally substituted lower alkyl group or R' and R" together with the atom to which they are attached form a cyclic group.

43. (Previously Presented) The compound of Claim 37, wherein when p is 2;

the carbamate group is attached at position 3 of the azoniabicyclic ring having (3R)-configuration;

R1 is a phenyl group which is optionally substituted with a fluorine atom or a methyl group;

R2 is an unsubstituted cyclohexylmethyl group or a benzyl group which is optionally substituted with one or three fluorine atoms; and

X⁻ is iodine;

then, the sequence B-(CH₂)_n-A-(CH₂)_m- cannot be a methyl group.

44. (Previously Presented) The compound of Claim 37, wherein the compound is not one of:

- (3R)-3-(Benzylphenylcarbamoyloxy)-1-methyl-1-azoniabicyclo[2.2.2]octane iodide;
- (3R)-3-[(4-Fluorobenzyl)phenylcarbamoyloxy]-1-methyl-1-azoniabicyclo[2.2.2]octane iodide;

- (3 R)-3-(Benzyl-o-tolylcarbamoyloxy)-1-methyl-1-azoniabicyclo[2.2.2]octane iodide
- (3R)-1 -Methyl-3-[o-tolyl-(2,4,5-trifluorobenzyl)carbamoyloxy]-1-azoniabicyclo[2.2.2]octane iodide;
- (3R)-3-[4-Fluorobenzyl)-m-tolylcarbamoyloxy]-1-methyl-1-azoniabicyclo[2.2.2]octane iodide;
- (3R)-3-[Benzyl-(2-fluorophenyl)carbamoyloxy]-1-methyl-1-azoniabicyclo[2.2.2]octane iodide; or
- (3R)-3-[Cyclohexylmethyl-(2-fluorophenyl)carbamoyloxy]-1-methyl-1-azoniabicyclo[2.2.2]octane iodide.

45. (Previously Presented) The compound of Claim 37, wherein R1 represents a group chosen from phenyl, 2-thienyl, 3-thienyl, thiophen-2-ylmethyl, thiophen-3-ylmethyl, furan-2-ylmethyl, and furan-3-ylmethyl, wherein the cyclic group present in R1 is optionally substituted with one, two, or three, identical or different, substituents chosen from fluorine, chlorine, bromine, methyl, methoxy, trifluoromethyl, ethyl, tert-butyl, hydroxy, and cyano.

46. (Previously Presented) The compound of Claim 45, wherein R1 represents a group chosen from phenyl, 2-fluorophenyl, 3-fluorophenyl, 4-fluorophenyl, 3-methylphenyl, 4-methylphenyl, 2,5-difluorophenyl, 2,6-difluorophenyl, 2,4,5-trifluorophenyl, 5-methylfuran-2-ylmethyl, 4-fluoro-2-methylphenyl, 3-fluoro-4-methoxyphenyl, 3-methyl-thiophen-2-ylmethyl, 4,5-dimethyl-thiophen-2-ylmethyl, thiophen-3-ylmethyl, 5-methyl-furan-2-ylmethyl, 5-methyl-2-trifluoromethyl-furan-3-ylmethyl, and 2, 5-dimethyl-furan-3-ylmethyl.

47. (Previously Presented) The compound of Claim 37, wherein R2 represents a group chosen from pent-4-enyl, pentyl, butyl, allyl, benzyl, thiophen-2-ylmethyl, thiophen-3-ylmethyl, furan-2-ylmethyl, furan-3-ylmethyl, phenethyl, cyclopentyl, cyclohexyl, and cyclohexylmethyl, wherein the cyclic group present in R2 is optionally substituted with one, two, or three, identical or different, substituents chosen from fluorine, chlorine, bromine, methyl, methoxy, trifluoromethyl, ethyl, tert-butyl, hydroxy, and cyano.

48. (Previously Presented) The compound of Claim 47, wherein R2 represents a group chosen from 3-fluorobenzyl, 2,4,5-trifluorobenzyl, 3,4,5-trifluorobenzyl, 5-bromothiophen-2-ylmethyl, 3,4-dimethoxyphenylethyl, 3-methylthiophen-2-ylmethyl, thiophen-3-ylmethyl, 4-bromo-5-methylthiophen-2-ylmethyl, 4,5-dimethylfuran-2-ylmethyl, furan-3-ylmethyl, 2-fluoro-4-methoxybenzyl, 2-(4-fluorophenyl)ethyl, butyl, pent-4-enyl, and cyclopentyl.

49. (Previously Presented) The compound of Claim 37, wherein

- A is $-\text{CH}_2-$;
- m and n are both 0;
- B represents a group chosen from straight or branched, optionally substituted lower alkyl; hydroxy; straight or branched, optionally substituted lower alkoxy; cyano; nitro; $-\text{CH}=\text{CR}'\text{R}''$; $-\text{C}(\text{O})\text{OR}'$; $-\text{OC}(\text{O})\text{R}$; $-\text{SC}(\text{O})\text{R}'$; $-\text{C}(\text{O})\text{NR}'\text{R}''$; $-\text{NR}'\text{C}(\text{O})\text{OR}''$; $-\text{NR}'\text{C}(\text{O})\text{NR}''$; cycloalkyl; phenyl; naphthanelyl; 5,6,7,8-tetrahydronaphthanelyl; benzo[1,3]dioxolyl; heteroaryl; and heterocyclyl; and

- R' and R" are each independently chosen from a hydrogen atom and a straight or branched, optionally substituted lower alkyl group, or R' and R" together with the atom to which they are attached form a cyclic group;

and wherein the cyclic groups represented by B are optionally substituted by one, two or three, identical or different, substituents chosen from halogen; hydroxyl; straight or branched, optionally substituted lower alkyl; phenyl; -OR'; -SR'; -NR'R"; -NHCOR'; -CONR'R"; -CN, -NO₂ and -COOR'; wherein R' and R" are each independently chosen from a hydrogen atom, or a straight or branched, optionally substituted lower alkyl group, or R' and R" together with the atom to which they are attached form a cyclic group.

50. (Previously Presented) The compound of Claim 37, wherein

- A is —CH₂—;

- B represents a hydrogen atom, or a group chosen from straight or branched, optionally substituted lower alkyl; hydroxy; straight or branched, optionally substituted lower alkoxy; cyano; nitro; -CH=CR'R"; -C(O)OR'; -OC(O)R'; -SC(O)R'; -C(O)NR'R"; -NR'C(O)OR"; -NR'C(O)NR"; cycloalkyl; phenyl; naphthanelyl; 5,6,7,8-tetrahydronaphthanelyl; benzo[1,3]dioxolyl; heteroaryl; and heterocyclyl; wherein R' and R" are each independently chosen from a hydrogen atom and a straight or branched, optionally substituted lower alkyl group, or R' and R" together with the atom to which they are attached form a cyclic group;

and wherein the cyclic group represented by B is optionally substituted by one, two or three, identical or different, substituents chosen from halogen; hydroxyl; straight or branched, optionally substituted lower alkyl; phenyl; -OR'; -SR'; -NR'R"; -NHCOR'; -

CONR'R"; -CN; -NO₂; and -COOR'; wherein R' and R" are each independently chosen from a hydrogen atom, or a straight or branched, optionally substituted lower alkyl group, or R' and R" together with the atom to which they are attached form a cyclic group; and

- at least one of m or n is not 0.

51. (Previously Presented) The compound of Claim 37, wherein B represents a thiophen-2-yl group or a phenyl group which is optionally substituted with one, two, or three, identical or different, substituents chosen from halogen atoms and hydroxy, methyl, -CH₂OH, -OMe, -NMe₂, -NHCOMe, -CONH₂, -CN, -NO₂, -COOMe, and -CF₃ groups.

52. (Previously Presented) The compound of Claim 51, wherein B represents a group chosen from phenyl, 4-fluorophenyl, 3-hydroxyphenyl, and thiophen-2-yl.

53. (Previously Presented) The compound of Claim 37, wherein n= 0 or 1; m is an integer ranging from 1 to 6; and A represents a group chosen from -CH₂-, -CH=CH-, -CO-, -NMe-, -O-, and -S-.

54. (Previously Presented) The compound of Claim 53, wherein m is an integer equal to 1, 2 or 3 and A represents a group chosen from -CH₂-, -CH=CH-, and -O-.

55. (Previously Presented) The compound of Claim 37, wherein B-(CH₂)_n-A-(CH₂)_m- represents a group chosen from 3-phenoxypropyl, 2-phenoxyethyl, 3-phenylallyl, phenethyl, 3-phenylpropyl, 3-(3-hydroxyphenoxy)propyl, 3-(4-fluorophenoxy)propyl, 3-thiophen-2-ylpropyl, allyl, heptyl, 3-cyanopropyl, and methyl.

56. (Previously Presented) The compound of Claim 37, wherein X⁻ represents anion chosen from chloride, bromide, trifluoroacetate, and methanesulphonate.

57. (Previously Presented) The compound of Claim 36, wherein p is 2.

58. (Previously Presented) The compound of Claim 36, wherein the azabicyclic ring is substituted in the 3-position.

59. (Previously Presented) The compound of Claim 58, wherein the carbon at the 3-position of the azabicyclic ring has R configuration.

60. (Previously Presented) The compound of Claim 58, wherein the carbon at the 3-position of the azabicyclic ring has S configuration.

61. (Previously Presented) The compound of Claim 36, wherein the compound of formula (I) is a single isomer.

62. (Previously Presented) The compound of Claim 36, chosen from:

- [2-(3,4-Dimethoxyphenyl)ethyl]-(5-methylfuran-2-ylmethyl)carbamic acid (3R)-1-azabicyclo[2.2.2]oct-3-yl ester;

- (5-Bromo-2-ylmethyl)-(2,4,5-trifluorophenyl)carbamic acid (3R)-1-azabicyclo[2.2.2]oct-3-yl ester;

- (4-Fluoro-2-methylphenyl)-(3-methylthiophen-2-ylmethyl)carbamic acid (3R)-1-azabicyclo[2.2.2]oct-3-yl ester;

- (3-Fluoro-4-methoxyphenyl)thiophen-3-ylmethylcarbamic acid (3R)-1-azabicyclo[2.2.2]oct-3-yl ester

- Thiophen-3-ylmethyl-(2,4,5-trifluorobenzyl)carbamic acid (3R)-1-azabicyclo[2.2.2]oct-3-yl ester;

- (4-Bromo-5-methylthiophen-2-ylmethyl)-(3-methylthiophen-2-ylmethyl)carbamic acid

(3R)-1-azabicyclo[2.2.2]oct-3-yl ester;

- (4, 5-Dimethylfuran-2-ylmethyl)-(5-methylfuran-2-ylmethyl)carbamic acid (3R)-1-azabicyclo[2.2.2]oct-3-yl ester;

- Furan-3-ylmethyl-(5-methyl-2-trifluoromethylfuran-3-ylmethyl)carbamic acid (3R)-1-azabicyclo[2.2.2]oct-3-yl ester;

- (2,5-Dimethylfuran-3-ylmethyl)-(2-fluoro-4-methoxybenzyl)carbamic acid (3R)-1-azabicyclo[2.2.2]oct-3-yl ester;

- [2-(4-Fluorophenyl)ethyl]-(3-methylthiophen-2-ylmethyl)carbamic acid (3R)-1-azabicyclo[2.2.2]oct-3-yl ester;

- Butyl-(2, 5-difluorophenyl)carbamic acid (3R)-1-azabicyclo[2.2.2]oct-3-yl ester;

- (2,6-Difluorophenyl)pent-4-enylcarbamic acid (3R)-1-aza-bicyclo[2.2.2]oct-3-yl ester;

- Cyclopentyl-(4,5-dimethylthiophen-2-ylmethyl)carbamic acid (3R)-1-azabicyclo[2.2.2]oct-3-yl ester; and

- (5-Ethylthiophen-2-ylmethyl)-(3-methylthiophen-2-ylmethyl)carbamic acid (3R)-1-azabicyclo[2.2.2]oct-3-yl ester.

63. (Previously Presented) The compound of Claim 36, chosen from:

- (3R)-3-[(3-Fluorobenzyl)-(3-fluorophenyl)carbamoyloxy]-1-(2-phenoxyethyl)-1-azoniabicyclo[2.2.2]octane bromide;

- (3R)-3-[(3-Fluorobenzyl)-(3-fluorophenyl)carbamoyloxy]-1-(3-phenylpropyl)-1-azoniabicyclo[2.2.2]octane bromide;

- (3R)-1-(2-Phenoxyethyl)-3-[m-tolyl-(2,4,5-trifluorobenzyl)carbamoyloxy]-1-azoniabicyclo[2.2.2]octane bromide;

- (3R)-1-(3-Phenylpropyl)-3-[m-tolyl-(2,4,5-trifluorobenzyl)carbamoyloxy]-1-azoniabicyclo[2.2.2]octane bromide;
- (3R)-3-[(3-Fluorophenyl)-(3,4,5-trifluorobenzyl)carbamoyloxy]-1-(2-phenoxyethyl)-1-azoniabicyclo[2.2.2]octane bromide;
- (3R)-1-Allyl-3-[[2-(3,4-dimethoxyphenyl)ethyl]-(5-methylfuran-2-ylmethyl)carbamoyloxy]-1-azoniabicyclo[2.2.2]octane bromide;
- (3R)-3-[(5-Bromothiophen-2-ylmethyl)-(2,4,5-trifluorophenyl)carbamoyloxy]-1-(3-phenoxypropyl)-1-azoniabicyclo[2.2.2]octane trifluoroacetate;
- (3R)-3-[[2-(3,4-dimethoxyphenyl)ethyl]-(5-methylfuran-2-ylmethyl)carbamoyloxy]-1-(4-ethoxycarbonylbutyl)-1-azoniabicyclo[2.2.2]octane trifluoroacetate;
- (3R)-3-[(4-Fluoro-2-methylphenyl)-(3-methylthiophen-2-ylmethyl)carbamoyloxy]-1-(2-phenoxyethyl)-1-azoniabicyclo[2.2.2]octane trifluoroacetate;
- (3R)-3-[(3-Fluoro-4-methoxyphenyl)thiophen-3-ylmethylcarbamoyloxy]-1-(3-phenylallyl)-1-azoniabicyclo[2.2.2]octane trifluoroacetate;
- (3R)-1-Phenethyl-3-[thiophen-3-ylmethyl-(2,4,5-trifluorobenzyl)carbamoyloxyl-1-azoniabicyclo[2.2.2]octane trifluoroacetate;
- (3R)-3-[(4-Bromo-5-methylthiophen-2-ylmethyl)-(3-methylthiophen-2-ylmethyl)carbamoyloxy]-1-(3-phenylpropyl)-1-azoniabicyclo[2.2.2]octane trifluoroacetate;
- (3R)-3-[(4,5-Dimethylfuran-2-ylmethyl)-(5-methylfuran-2-ylmethyl)carbamoyloxy]-1-[3-(3-hydroxyphenoxy)propyl]-1-azoniabicyclo[2.2.2]octane trifluoroacetate;
- (3R)-1-[3-(4-Fluorophenoxy)propyl]-3-[furan-3-ylmethyl-(5-methyl-2-trifluoromethylfuran-3-ylmethyl)carbamoyloxy]-1-azoniabicyclo[2.2.2]octane

trifluoroacetate;

- (3R)-3-[(2,5-Dimethylfuran-3-ylmethyl)-(2-fluoro-4-methoxybenzyl)carbamoyloxy]-1-(3-thiophen-2-ylpropyl)-1-azoniabicyclo[2.2.2]octane trifluoroacetate;
- (3R)-1-Allyl-3-[2-(4-fluorophenyl)ethyl]-(3-methylthiophen-2-ylmethyl)carbamoyloxy]-1-azoniabicyclo[2.2.2]octane trifluoroacetate;
- (3R)-3-[Butyl-(2,5-difluorophenyl)carbamoyloxy]-1-heptyl-1-azoniabicyclo[2.2.2]octane trifluoroacetate;
- (3R)-1-(3-cyanopropyl)-3-[(2,6-difluorophenyl)pent-4-enylcarbamoyloxy]-1-azoniabicyclo[2.2.2]octane trifluoroacetate;
- (3R)-3-[Cyclopentyl-(4,5-dimethylthiophen-2-ylmethyl)carbamoyloxy]-1-methyl-1-azoniabicyclo[2.2.2]octane trifluoroacetate;
- (3R)-3-[(3-Fluorophenyl)-(3,4,5-trifluorobenzyl)carbamoyloxy]-1-(3-phenylpropyl)-1-azoniabicyclo[2.2.2]octane bromide;
- (3R)-3-[(5-Ethylthiophen-2-ylmethyl)-(3-methylthiophen-2-ylmethyl)carbamoyloxy]-1-(3-phenylpropyl)-1-azoniabicyclo[2.2.2]octane bromide;
- (3R)-3-[[2-(3,4-dimethoxyphenyl)ethyl]-(5-methylfuran-2-ylmethyl)carbamoyloxy]-1-(4-ethoxycarbonylbutyl)-1-azoniabicyclo[2.2.2]octane formate;
- (3R)-3-[(4-Fluoro-2-methylphenyl)-(3-methylthiophen-2-ylmethyl)carbamoyloxy]-1-(2-phenoxyethyl)-1-azoniabicyclo[2.2.2]octane bromide;
- (3R)-3-[(3-Fluoro-4-methoxyphenyl)thiophen-3-ylmethylcarbamoyloxy]-1-(3-phenylallyl)-1-azoniabicyclo[2.2.2]octane bromide; and
- (3R)-1-Allyl-3-[2-(4-fluorophenyl)ethyl]-(3-methylthiophen-2-ylmethyl)carbamoyloxy]-1-azoniabicyclo[2.2.2]octane bromide.

64. (Previously Presented) A pharmaceutical composition comprising at least one compound of Claim 36, and at least one pharmaceutically acceptable carrier or diluent.

65. (Previously Presented) The compound of Claim 36, wherein the compound is effective for the treatment of a pathological condition or disease susceptible to amelioration by antagonism of M3 muscarinic receptors.

66. (Previously Presented) A method for treating a subject afflicted with a pathological condition or disease susceptible to amelioration by antagonism of M3 muscarinic receptors, comprising administering to said subject an effective amount of at least one compound of Claim 36.

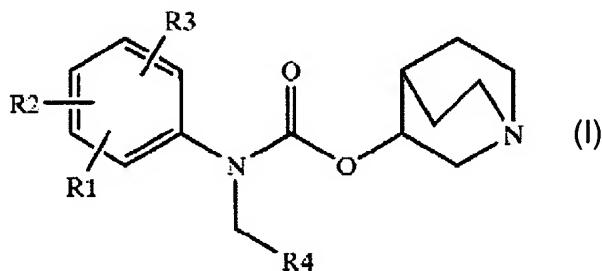
67. (Previously Presented) The method according to Claim 66, wherein the pathological condition is chosen from respiratory, urological, and gastrointestinal disease or disorder.

68. (Previously Presented) A combination product comprising,
(i) at least one first compound of Claim 36; and
(ii) at least one second compound effective in the treatment of at least one pathological condition chosen from respiratory, urological, and gastrointestinal disease or disorder, wherein the at least one first compound and the at least one second compound are administered simultaneously, separately, or sequentially.

69. (Previously Presented) A combination product comprising,
(i) at least one first compound of Claim 36; and
(ii) at least one second compound chosen from a β_2 agonist, steroid, antiallergic drug, phosphodiesterase IV inhibitor, and a leukotriene D4 (LTD4) antagonist, wherein the at

least one first compound and the at least one second compound are administered simultaneously, separately, or sequentially in the treatment of a respiratory disease.

70. (New) A compound of formula (I)



wherein R1, R2 and R3 are the same or different radicals, attached to the benzenic ring at any of their possible positions, and they are selected from the group consisting of H, OH, SH, CN, F, Cl, Br, I, (C₁-C₄)-alkylthio, (C₁-C₄)-alkoxyl, (C₁-C₄)-alkoxyl substituted with one or several F, carbamoylamine, (C₁-C₄)-alkyl and (C₁-C₄)-alkyl substituted with one or several F or OH; alternatively, either R1 and R2, or R2 and R3 may be forming a biradical selected from the group consisting of -CH₂-CH₂-CH₂- and -CH₂-CH₂-CH₂-CH₂-; and

R4 is a radical selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cyclohexenyl, norbornenyl, bicyclo[2.2.1]heptanyl, 2-, 3-, 4-pyridyl, 1-, 2-naphtyl, 1-, 2-benzodioxolanyl, 1-, 2-benzodioxanyl and phenyl substituted with one or several substituents selected from the group consisting of OH, SH, CN, F, Cl, Br, I, carbamoylamine, hydroxycarbonyl, (C₁-C₄)-alkoxycarbonyl, (C₁-C₄)-alkylthio, (C₁-C₄)-alkyl, (C₁-C₄)-alkoxyl, (C₁-C₄)-alkyl substituted with one or several F or OH, and (C₁-C₄)-alkoxyl substituted with one or several F;

or a pharmaceutically acceptable (C₁-C₄)-alkylammonium salt over the quinuclidyl nitrogen thereof, or a N-oxide over the quinuclidyl nitrogen thereof; or a stereoisomer, a stereoisomer mixture, a pharmaceutically acceptable salt, or a pharmaceutically acceptable solvate thereof.

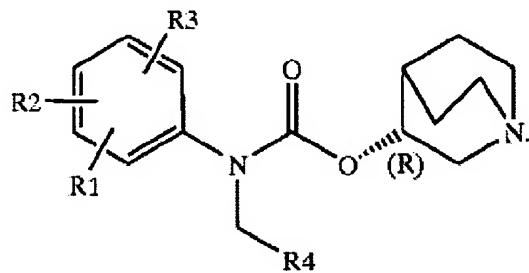
71. (New) A compound according to claim 70, wherein R4 is phenyl substituted with one or several substituents independently selected from the group consisting of: OH, SH, CN, F, Cl, Br, I, carbamoylamine, hydroxycarbonyl, (C₁-C₄)-alkoxycarbonyl, (C₁-C₄)-alkylthio, (C₁-C₄)-alkyl, (C₁-C₄)-alkoxyl, (C₁-C₄)-alkyl substituted with one or several F or OH, and (C₁-C₄)-alkoxyl substituted with one or several F.

72. (New) A compound according to claim 70, wherein R4 is selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cyclohexenyl, norbornenyl, bicyclo[2.2.1]heptanyl, 2-, 3-, 4-pyridyl, 1-, 2-naphthyl, 1-, 2-benzodioxolanyl, and 1-, 2-benzodioxanyl.

73. (New) A compound according to claim 70, wherein the nitrogen of the quinuclidine ring is forming a pharmaceutically acceptable (C₁-C₄)-alkylammonium salt.

74. (New) A compound according to claim 70, wherein the nitrogen of the quinuclidine ring is forming a N-oxide.

75. (New) A compound according to claim 70, wherein the stereocenter corresponding to the 3 position in the quinuclidine ring is (R), having the formula:



76. (New) A method of treating urinary incontinence in a subject comprising administering to the subject in need thereof a therapeutic amount of a compound according to claim 70.

77. (New) The method according to claim 76, wherein urinary incontinence is caused by unstable bladder.

78. (New) A method of treating irritable bowel syndrome in a subject comprising administering to the subject in need thereof a therapeutic amount of a compound according to claim 70.

79. (New) A method of treating a respiratory disease selected from chronic obstructive pulmonary disease, chronic bronchitis, asthma, emphysema, and rhinitis in a subject comprising administering to the subject in need thereof a therapeutic amount of a compound according to claim 70.